Table 6-8
Analytical Procedures

Parameter	Technique	Extraction and Analysis Method[a]		
		Water		Sediment
Volatile Organics	GC/MS	5030/8260B		5035/8260B
Semivolatile Organics	GC/MS	3510C/8270C		3550B/8270C
Pesticides	GC	3510C/8081		3550B/8081
Aroclor PCBs	GC	3510C/8082		3550B/8082
PCB Congeners and Homologues	HRGC/HRMS	INC/1668A[b]		INC/1668A[b]
Chlorinated Herbicides	GC	INC/8151A		INC/8151A
PCDDs/PCDFs	HRGC/HRMS	INC/1613B[c]		INC/1613B[c]
TEPH	GC	NJ-TPH-QAM-025-10/91		NJ-TPH-QAM-025-10/91
Inorganics	ICP	3010/6010		3050/6010
Mercury	CVAA	INC/7470		INC/7471A
Cyanide	Titration/ Colorimetric	9010B/9013/9014[d]		9010B/9013/9014[d]
Total Organic Carbon (TOC)	Carbonaceous Analyzer	EPA 415.1		INC/Lloyd Kahn[e]
Cesium-137	Gamma Spectroscopy	NA		Paragon Analytics[f] SOP
Beryllium-7	Gamma Spectroscopy	NA		Paragon Analytics[f] SOP
Lead-210	Beta Detection	NA		Paragon Analytics[f] SOP
Percent Moisture	Gravimetric	NA		ASTM D2974
Organotins	GC	STL SOP LM-GC-ALKYLTINS, Rev. 7[g]		STL SOP LM-GC-ALKYLTINS, Rev. 7[g]
Grain Size	Laser Defraction	NA		PTL SOP[h]

Notes:

a. All methods are from USEPA SW-846 "Test Methods for Evaluating Solid Waste," Third Edition, December 1996 including promulgated final update III, unless otherwise noted. 'INC' indicates that the sample preparation method is included in the analytical method. 'NA' indicates that the analysis of a given parameter is not applicable. Copies of the extraction methods, analytical methods, and method summaries are included as Appendices to this IWP.
b. USEPA Method 1668A: Measurement of toxic PCB congeners by isotope dilution HRGC/HRMS (December, 1999).
c. The method for PCDDs/PCDFs is USEPA Method 1613: Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS, Revision B (October 1994).
d. Method 9012A (automated UV, colorimetric) shall also be acceptable for cyanide analyses.
e. Lloyd Kahn TOC method, as modified by USEPA.
f. Paragon Analytics, Inc.
g. STL, SOP No. LM-GC-ALKYLTINS Rev. 7, Standard Operating Procedure for Organotin Compounds.
h. PTL – Particle Technology Laboratory, Ltd.

NA = Not Applicable.
GC/MS = gas chromatography/mass spectroscopy.
HRGC/LRMS = high resolution gas chromatography/low resolution mass spectroscope.
GC = gas chromatography.
HRGC/HRMS = high resolution gas chromatography/high resolution mass spectroscopy.
CVAA = cold vapor atomic absorption.
ICP = inductively coupled plasma emission spectroscopy.